

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Examiner Unknown
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Title: Capacitors, Methods of Forming Capacitors, and Methods of Forming
Capacitor Dielectric Layers

**VERSION WITH MARKINGS TO SHOW CHANGES MADE
ACCOMPANYING PRELIMINARY AMENDMENT**

In the Specification

The replacement specification paragraph incorporates the following amendment. Underlines indicate insertions and ~~strikeouts~~ indicate deletions.

A wafer fragment in process in accordance with the a
method of forming a capacitor in accordance with an aspect of
the invention is indicated generally with reference numeral 10.
Such comprises a bulk monocrystalline silicon substrate 12. In
the context of this document, the term "semiconductor substrate"
or "semiconductive substrate" is defined to mean any construction
comprising semiconductive material, including, but not limited to,
bulk semiconductive materials such as a semiconductive wafer
(either alone or in assemblies comprising other materials thereon),

and semiconductive material layers (either alone or in assemblies comprising other materials). The term "substrate" refers to any supporting structure, including, but not limited to, the semiconductive substrates described above. An insulative layer 14, for example doped or undoped silicon dioxide, or silicon nitride, is formed over bulk substrate 12.

In the Claims

The claims have been amended as follows. Underlines indicate insertions and ~~strikeouts~~ indicate deletions.

8. (Amended) A method of forming a capacitor comprising:
forming first capacitor electrode material over a semiconductor substrate;
forming a silicon nitride comprising layer over the first capacitor electrode material, the silicon nitride comprising layer comprising pinholes formed therein;

forming a silicon oxide comprising layer over the silicon nitride comprising layer and effective to fill said pinholes with silicon oxide;

exposing the silicon oxide comprising layer to an activated nitrogen species generated from a nitrogen-containing plasma effective to introduce nitrogen into the silicon oxide comprising layer, and forming silicon nitride therefrom, with at least some silicon oxide remaining within said previously formed pinholes; and

after the exposing, forming second capacitor electrode material over the substrate.

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